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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,268	08/31/2000	Tomoharu Horio	KIX0103-US	4054

7590

06/20/2002

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EXAMINER

DINH, TUAN T

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 06/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/653,268

Applicant(s)

HORIO, TOMOHARU

Examiner

Tuan T Dinh

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
Page 14, lines 18-19, change "the substrate 10" to --the substrate 1--.
Appropriate correction is required.

Claim Objections

2. Claim 10 is objected to because of the following informalities: claim 10, line 3, change "an obverse surface" to --the obverse surface--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 8, it is unclear. The phrase of "resin packaging the group of components mounted on the substrate" is not understood. Does applicant meant of "resin packaging the group of components mounted on the substrate", which is refer to a group of components including plural sets of light emitting elements and light receiving elements?

Regarding claim 6, line 6, it is unclear. The phrase of "resin packaging the group of components mounted on the substrate" is not understood. Does applicant meant of "resin packaging the group of components mounted on the substrate", which is refer to a group of components including plural sets of light emitting elements and light receiving elements?

Regarding claim 10, line 2, it is unclear. The phrase of "wherein the terminals are so formed as to projects from an obverse surface" is not understood.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4-7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Prior Art (references submitted by applicant).

As best understood to claims 1, 6, and 10, PA discloses in figures 20-23 a method of making an infrared data communication modules and an infrared data communication module made by the steps

forming predetermined wiring patterns (not shown, page 4, lines 15-16) on an obverse and a reverse surfaces of a substrate (1e);

mounting, on one of the surfaces of the substrate, a group of components including plural sets of light emitting elements (3e) and light receiving elements (3e);

resin-packaging (4e) covering the group of components (2e, 3e) mounted on the substrate (1e); and

dividing the resin-packaged components (4e) into a plurality of infrared data communication modules (see figures 20-21) each of which includes a respective set of light emitting element and light receiving element (resin-packaging covering components 2e, 3e);

wherein the resin-packaging step comprises forming a plurality of mutually separated resin packages each of which collectively seals at least two sets of light emitting elements and light receiving elements (page 3, lines 13-14).

As to claims 4 and 7, PA discloses in figures 20-23 the method and the infrared data communication module wherein the substrate is formed with through-holes (7) penetrating the substrate thicknesswise; and

wherein the reverse surface of the substrate is formed with terminals (71) for connection to the through-holes and dummy patterns (wiring patterns) which are substantially equal in thickness to the terminals.

As to claims 5 and 9, PA discloses in figures 20-23 an infrared data communication module wherein the substrate (1e) is formed with through-holes (7) penetrating the substrate thicknesswise;

wherein the reverse surface of the substrate (1e) is formed with terminals (71) for connection to the through-holes and for bonding to an external mounting board (9); and wherein the terminals are elongated to be substantially rectangular.

Allowable Subject Matter

7. Claims 2-3 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rosenberg, Kunii et al., and Schairer disclose related art.

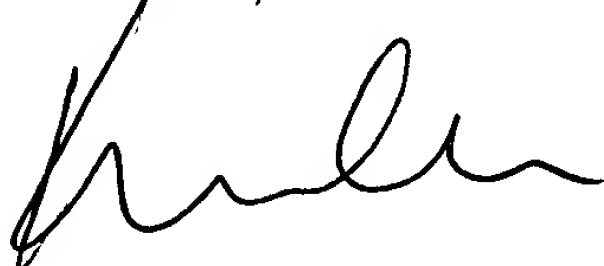
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 703-306-5856. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TD

June 16, 2002.



**KAMAND CUNEO
PRIMARY EXAMINER**